

Specification Amendments

Please replace the paragraph beginning on page 5, line 27, with the amended paragraph, as follows:

FIG. 8 illustrates another form of the invention with ~~four~~three subchambers and ~~four~~three vents.

Please replace the paragraph beginning on page 5, line 29, with the amended paragraph, as follows:

FIG. 9 depicts another form of the invention with three subchambers and ~~three~~four vents.

Please replace the paragraph beginning on page 6, line 1, with the amended paragraph, as follows:

FIG. 10 shows another form of the invention with ~~three~~four subchambers and four vents; ~~and three vent tunings.~~

Please replace the paragraph beginning on page 6, line 3, with the amended paragraph, as follows:

FIG. 11 ~~represents a side view of the invention of FIG. 14 is taken along the lines 15-15~~
illustrates the invention with multiple transducers in an acoustically parallel arrangement.

Please replace the paragraph beginning on page 6, line 5, with the amended paragraph, as follows:

FIG. 12 shows the invention with multiple transducers ~~acoustically in a parallel~~push-pull
arrangement.

Please replace the paragraph beginning on page 6, line 6, with the amended paragraph, as follows:

FIG. 13 shows the invention with multiple transducers in ~~an acoustical parallel a~~ push-pull arrangement.

Please replace the paragraph beginning on page 14, line 20, with the amended paragraph, as follows:

FIG 9₂ also achieves objectives of the invention differing in structure from that of FIG. 5 by the addition of passive acoustic radiator 33 intercoupling second subchamber 22 to the region outside enclosure 10. In this case, the fourth passive acoustic radiator does not create a fourth Helmholtz reflex mode. The acoustic masses 30, 31, 33 and 34 and acoustic compliances 21, 22 and 23 are selected to establish three spaced frequencies in the passband of loudspeaker system at which there are Helmholtz-reflex tunings and the deflection characteristic of the vibratable diaphragm 13 as a function of frequency has a minimum. In one alignment of mass/compliance parameters, the system in FIG. 4+₉ operates with the passive acoustic radiators 30, 31 and 33 all having the same acoustic mass and interacting with the acoustic compliance of subchambers 22 and 23 such that a first, highest Helmholtz-reflex frequency is established by passive acoustic radiator 30 efficiently coupling the two subchambers 22 and 23. This allows subchambers 22 and 23 to act as one large subchamber with passive acoustic radiators 31 and 33 operating in parallel and resonating with the large, virtual subchamber 22/23. At a frequency spaced apart and lower than the first higher frequency, the mass of passive acoustic radiator 31 resonates with the compliance of subchamber 22 to form a second Helmholtz-reflex mode. These two Helmholtz-reflex modes establish a multi-pole acoustic lowpass filter that has a stop band of at least 24 dB per octave. In one alignment of parameters to have the system function as described above, the subchambers 22 and 23 would be sized approximately in a 60%/40% (of the total subchamber 22 plus subchamber 23 volume) relationship respectively. Passive acoustic radiator 34 creates the lowest Helmholtz-reflex tuning frequency substantially the same as the embodiment shown in FIG. 5.